

REMARKS

Claims 1-22 and 24-35 are pending with claims 1-21 indicated as allowed. By this Amendment, claims 22, 24 and 30-32 are amended, claim 35 added and claim 23 canceled without prejudice to or disclaimer of the subject matter found therein.

The courtesies extended to Applicant's representative by Examiner Nguyen at the interview held November 25, 2003, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicant's record of the interview.

On page 2 of the Office Action claim 30 was objected to for lacking antecedent basis. Claim 30 has been amended to depend from claim 26 as suggested in the Office Action. Thus it is requested the objection be withdrawn.

On page 4, claims 28-30 and 34 were objected to as being dependent upon a rejected base claim but indicated as allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. Applicant appreciates this indication of allowability but submits that claim 22, from which the objected to claims depend, is allowable for the reasons discussed below.

On page 2 of the Office Action, claims 22, 23, 31 and 32 were rejected under 35 U.S.C. §102(b) as being anticipated by Takahashi et al., U.S. Patent No. 5,402,159 (hereinafter "Takahashi '159") and on page 4 of the Office Action, claims 22-27 and 31-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fischbeck et al., U.S. Patent No. 4,825,227 (hereinafter "Fischbeck") in view of Takahashi et al., U.S. Patent No. 5,266,964 (hereinafter "Takahashi '964"). The rejections are respectfully traversed.

As agreed at the November 25, 2003 interview, for the following reasons, Applicant's invention of claim 22, which calls for an ink ejector, comprising a nozzle member having at least one nozzle and an ink channel between adjacent partition walls associated with each nozzle; a first piezoelectric layer; and a second piezoelectric layer lying between the nozzle

member and the first piezoelectric layer, wherein the first piezoelectric layer has a first pattern of electrodes, including a first set of electrodes and a second set of electrodes, for each ink channel, the first and second sets arranged perpendicularly to a laminating direction of the nozzle member, a second piezoelectric layer, and a first piezoelectric layer and the second piezoelectric layer has a second pattern of electrodes for each ink channel aligned in the laminating direction, and the first piezoelectric layer comprises a first plurality of sheets and the second piezoelectric layer comprises a second plurality of sheets, distinguishes over the applied references as none of the references disclose such. In the 103 rejection it is admitted that Fischbeck does not disclose such but argued that Takahashi '964 discloses such a feature.

Takahashi '159 discloses is a plurality of piezoelectric ceramic layers 40. As agreed, it does not disclose the combination of features recited, particularly the relationships of the first and second patterns of electrodes with respect to the direction of lamination.

As to the 35 U.S.C. § 103 rejection, Fischbeck shows but a single piezoelectric plate 18 having positive electrode strips 21 on an upper surface and a continuous conductive negative electrode 20 on a lower surface. Thus, as admitted in the Office Action, Fischbeck clearly does not show the two piezoelectric layers of an actuator. Further, Fischbeck does not show the first piezoelectric layer having a first pattern of electrodes, including a first set of electrodes and a second set of electrodes for each ink channel, the first and second sets arranged perpendicularly to a laminating direction of the nozzle member, a second piezoelectric layer, and first piezoelectric layer and the second piezoelectric layer has a second pattern of electrodes for each ink channel aligned in the laminating direction.

Takahashi '964 shows a plurality of piezoelectric ceramic layers 40, each of the layers having therein alternating negative electrodes 42 and positive electrodes 44. The sole exception is the top layer piezoelectric ceramic layer 40, which has no electrodes formed on an upper surface thereof. The negative electrodes 42 are aligned with the chamber walls and the positive electrodes 44 are aligned with the ink channels 32. All electrodes in both

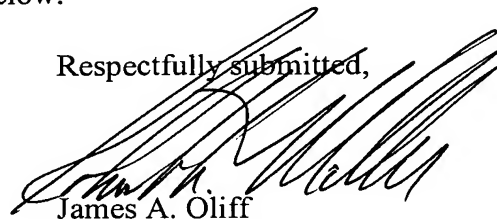
Fischbeck and Takahashi '964 are aligned in the laminating direction. Thus, as discussed at the interview, neither Takahashi '964 or the combination suggest the structure claimed.

Further, the combination of Takahashi and Fischbeck can not suggest the subject matter of claims 24-27 and 31-33 as, first, there is no motivation to combine the two references, they operating in a different manner, and, second, they do not disclose the features of claim 22 as discussed above and thus cannot suggest the subject matter of claims 24-27 and 31-33 for the reasons discussed above as well as for the additional features recited therein.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 22 and 24-35 in addition to previously allowed claims 1-21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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